

Application No.: 10/669,616
Amendment dated October 17, 2005
Reply to Office Action of June 15, 2005

Amendments to the Specifications:

Please replace paragraph [1026] with the following amended paragraph:

[1026] FIG. 3 depicts an embodiment of a system 300 of the present invention. The embodiment depicted in FIG. 3 comprises a charged particle beam system 309, a host computer 342, a display 344, an operator interface 346 (such as a keyboard and mouse), memory ~~344~~343, and a host interface 340. In some embodiments, all or part of the functionality of host computer ~~304-342~~ can be replaced with one or more embedded computers.

Please replace paragraph [1032] with the following amended paragraph:

[1032] Ions are extracted from plasma ion source 310 and accelerated through ion column 308 to produce an ion beam 322, which is used to mill the metallization layer covering the alignment marks. When a FIB system is used, the ion beam mills the surface by sputtering, that is, physically removing atoms and molecules from the specimen surface. Secondary electrons 324 can be collected by detector 304 to form an image of the specimen surface. The analog signals from detector 304 are converted into digital signals and subjected to signal processing by ion beam signal processing unit (not shown)~~358~~. The resulting digital signal can be used by host 342, in coordination with signals from beam deflector 354, to display an image of workpiece 301 on display 344.

Please replace paragraph [1040] with the following amended paragraph:

[1040] FIG. 4 is a flowchart showing the steps of a preferred embodiment of the invention. In optional step ~~402~~401, a workpiece, such as a semiconductor wafer where the alignment marks have been covered by a metallization layer, is retrieved from a cassette containing a number (e.g. 25 units) of wafers.